

EAST Search History

EAST Search History (Prior Art)

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|--|---|------------------|---------|---------------------|
| L1 | 14 | (etch\$4 same (dielectric or oxide or insulat\$4)) same (amorphous near carbon) and ("ARC" or (anti near reflective near coat\$4)) same (amorphous near carbon) and (deposit\$4 same resist) and (pattern\$4 same resist) and resist\$4 same ("ARC" or (anti near reflective near coat\$4)) and etch\$4 same ("ARC" or (anti near reflective near coat\$4)) and wang.inv. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/26 15:43 |
| L5 | 2 | "10799146" | US-PGPUB; USPAT; EPO; JPO; DERWENT | OR | ON | 2009/08/26 15:56 |
| L6 | 4 | 10/799146 | US-PGPUB; USPAT; EPO; JPO; DERWENT | OR | ON | 2009/08/26 15:56 |
| S1 | 107 | ((("6635583B2") or ("6624064B1") or ("6573030") or ("6541397B1") or ("6458516B1") or ("6423384B1") or ("6413852") or ("6380106") or ("6358573B1") or ("6333255") or ("6331380B1") or ("6323119B1") or ("6316347") or ("6291334B1") or ("6235629") or ("6214730") or ("6211065B1") or ("6165890") or ("6153935") or ("6143476") or ("6140226") or ("6140224") or ("6098568") or ("6080529") or ("6066577") or ("6064118") or ("6057226") or ("6035803") or ("6030901") or ("6008140") or ("5986344") or ("5900288") or ("5866920") or ("5789320") or ("5759913") or | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/06/30 08:12 |

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|----|---|--|--|----|-----|---------------------|
| | | ("5461003") or ("6852647") or ("6624064") or ("6596627") or ("6541842") or ("6428894") or ("6358804") or ("6346747") or ("6214637") or ("6203898") or ("6184572") or ("6183930") or ("6054379") or ("5930655") or ("5981000") or ("5882830") or ("5830332") or ("5262262") or ("5022959") or ("5674573") or ("5998100") or ("6352922") or ("6653735") or ("DE10328578") or ("EP381109") or ("EP901156") or ("JP9045633") or ("JP11026578") or ("4975144") or ("6043167") or ("6428894") or ("6884733")).PN. or ((2003/0091938A1) or (2002/0090794A1) or (2002/0086547A1) or (2002/0001778A1) or (2001/0007788A1) or (2004/0038537A1) or (2004/0023502) or (2004/0166691A1) or (2004/0180551A1) or (2004/0038537) or (2004/0229470)).CCLS. | | | | |
| S2 | 7 | S1 and (substrate or wafer or semiconductor) and chamber and (propylene or propyne or propane or butane or butylene or butadiene or acetelyne) and argon and plasma and ("RF" or "radio frequency") and (amorphous near4 carbon) | US-PGPUB; USPAT; EPO; JPO; DERWENT | OR | OFF | 2005/12/14 08:22 |
| S3 | 6 | S1 and (substrate or wafer or semiconductor) and chamber and (propylene or propyne or propane or butane or butylene or butadiene or acetelyne) and argon and plasma and ("RF" or "radio frequency") and (amorphous near4 carbon) and (hydrogen or oxygen) | US-PGPUB; USPAT; EPO; JPO; DERWENT | OR | OFF | 2005/12/14 08:23 |

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|----|---|---|--|----|-----|---------------------|
| S4 | 1 | S1 and (substrate or wafer or semiconductor) and chamber and (propylene or propyne or propane or butane or butylene or butadiene or acetelyne) and argon and plasma and ("RF" or "radio frequency") and (amorphous near4 carbon) and (hydrogen or oxygen) and etch\$4 and resist and ("silicon nitride" or "silicon carbide" or "carbon-doped silicon oxide" or "amorphous carbon") and dielectric | US-PGPUB; USPAT; EPO; JPO; DERWENT | OR | OFF | 2005/12/14 08:37 |
| S5 | 6 | (substrate or wafer or semiconductor) and chamber and (propylene or propyne or propane or butane or butylene or butadiene or acetelyne) and argon and plasma and ("RF" or "radio frequency") and (amorphous near4 carbon) and (hydrogen or oxygen) and etch\$4 and resist and ("silicon nitride" or "silicon carbide" or "carbon-doped silicon oxide" or "amorphous carbon") and dielectric and "dual frequency" | US-PGPUB; USPAT; EPO; JPO; DERWENT | OR | OFF | 2005/12/16 10:52 |
| S6 | 2 | (substrate or wafer or semiconductor) and chamber and (propylene or propyne or propane or butane or butylene or butadiene or acetelyne) and argon and plasma and ("RF" or "radio frequency") and (amorphous near4 carbon) and (hydrogen or oxygen) and etch\$4 and resist and ("silicon nitride" or "silicon carbide" or "carbon-doped silicon oxide" or "amorphous carbon") and dielectric and "dual frequency" and ("ARC" or "anti reflective coating") | US-PGPUB; USPAT; EPO; JPO; DERWENT | OR | OFF | 2005/12/16 08:41 |
| S7 | 1 | 10/799146 | US-PGPUB; USPAT; EPO; JPO; DERWENT | OR | OFF | 2005/12/16 10:52 |

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|-----|----|--|---|----|----|---------------------|
| S8 | 5 | ((substrate or semiconductor or wafer) near8 chamber) and (hydrocarbon near8 gas) and argon and plasma and (dual near4 frequency) and (amorphous near4 carbon) and hydrogen and (dielectric or oxide or insulat\$4) and etch\$3 and silicon and oxygen | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/06/30 08:25 |
| S9 | 4 | ((substrate or semiconductor or wafer) near8 chamber) and (hydrocarbon near8 gas) and argon and plasma and (dual near4 frequency) and (amorphous near4 carbon) and hydrogen and (dielectric or oxide or insulat\$4) and etch\$3 and silicon and oxygen and (conduct\$4 or metal or polysilicon) and pattern | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/06/30 08:26 |
| S10 | 25 | (chamber same (substrate or carrier or base or plate or wafer)) and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (process\$4 same gas) and plasma and rf near (power or source) and (etch\$4 or remov\$4 or photolithograph\$8) same carbon and (etch\$4 same remov\$4) same(ARC or (ar near coat\$4) or (anti adj reflective)) and (pattern same resist) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/27 20:51 |

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|-----|----|--|---|----|----|---------------------|
| S11 | 1 | (chamber same (substrate or carrier or base or plate or wafer)) and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (process\$4 same gas) and plasma and rf near (power or source) and (etch \$4 or remov\$4 or photolithograph\$8) same carbon and (etch\$4 same remov\$4) same(ARC or (ar near coat\$4) or (anti adj reflective)) and (pattern same resist) and (257/437. ccls.) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/27 21:20 |
| S12 | 1 | (chamber same (substrate or carrier or base or plate or wafer)) and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (process\$4 same gas) and plasma and rf near (power or source) and (etch \$4 or remov\$4 or photolithograph\$8) same carbon and (etch\$4 same remov\$4) same(ARC or (ar near coat\$4) or (anti adj reflective)) and (pattern same resist) and (257/437. ccls.) and hydrocarbon | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/02/28 17:20 |
| S13 | 21 | (chamber same (substrate or carrier or base or plate or wafer)) and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (process\$4 same gas) and plasma and rf near (power or source) and (etch \$4 or remov\$4 or photolithograph\$8) same carbon and (etch\$4 same remov\$4) same(ARC or (ar near coat\$4) or (anti adj reflective)) and (pattern | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/03/02 11:43 |

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|-----|-----|--|---|----|----|---------------------|
| | | same resist) and argon | | | | |
| S14 | 14 | (chamber same (substrate or carrier or base or plate or wafer)) and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (process\$4 same gas) and plasma and rf near (power or source) and (etch \$4 or remov\$4 or photolithograph\$8) same carbon and (etch\$4 same remov\$4) same(ARC or (ar near coat\$4) or (anti adj reflective)) and (pattern same resist) and (argon same hydrocarbon) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/03/02 11:44 |
| S15 | 10 | (chamber same (substrate or carrier or base or plate or wafer)) and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (process\$4 same gas) and plasma and rf near (power or source) and (etch \$4 or remov\$4 or photolithograph\$8) same carbon and (etch\$4 same remov\$4) same(ARC or (ar near coat\$4) or (anti adj reflective)) and (pattern same resist) and (argon same hydrocarbon) same process\$4 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/03/02 11:44 |
| S16 | 171 | (argon same hydrocarbon) same (amorphous near carbon) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/03/02 11:49 |
| S17 | 14 | (argon same hydrocarbon) same (amorphous near carbon) same (process\$4 near gas) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/03/02 11:50 |

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| S18 | 2081 | 438/778.ccls. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:13 |
| S19 | 1047 | 438/778.ccls. and (substrate or wafer or carrier or base or plate) same chamber | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:14 |
| S20 | 980 | 438/778.ccls. and (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat \$4) same (substrate or wafer or carrier or base or plate) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:15 |
| S21 | 10 | 438/778.ccls. and (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat \$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrocarbon | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:16 |
| S22 | 12 | 438/778.ccls. and (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat \$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:16 |
| S23 | 12 | 438/778.ccls. and (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat \$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (amorphous near carbon) same carbon | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:16 |

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|-----|---|---|--|----|----|------------------|
| S24 | 9 | 438/778.ccls. and (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (amorphous near carbon) same carbon and (gas same hydrocarbon) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:17 |
| S25 | 5 | 438/778.ccls. and (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (amorphous near carbon) same carbon and (gas same hydrocarbon) and argon | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:17 |
| S26 | 4 | 438/778.ccls. and (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (amorphous near carbon) same carbon and (gas same hydrocarbon) and argon and (etch\$4 or pattern\$4) same (amorphous near carbon) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:18 |

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|-----|---|---|--|----|----|------------------|
| S27 | 3 | 438/778.ccls. and (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (amorphous near carbon) same carbon and (gas same hydrocarbon) and argon and (etch\$4 or pattern\$4) same (amorphous near carbon) and (etch\$4 or pattern\$4) same (dielectric or oxide or insulat\$4) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:18 |
| S28 | 3 | 438/778.ccls. and (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (amorphous near carbon) same carbon and (gas same hydrocarbon) and argon and (etch\$4 or pattern\$4) same (amorphous near carbon) and (etch\$4 or pattern\$4) same (dielectric or oxide or insulat\$4) and (anti near reflective) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:19 |
| S29 | 3 | 438/778.ccls. and (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (amorphous near carbon) same carbon and (gas same hydrocarbon) and argon and (etch\$4 or pattern\$4) same (amorphous near carbon) and (etch\$4 or pattern\$4) same (dielectric or oxide or insulat\$4) and | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:19 |

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|-----|---|--|--|----|----|------------------|
| | | (anti near reflective) and resist | | | | |
| S30 | 2 | 438/778.ccls. and (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (amorphous near carbon) same carbon and (gas same hydrocarbon) and argon and (etch\$4 or pattern\$4) same (amorphous near carbon) and (etch\$4 or pattern\$4) same (dielectric or oxide or insulat\$4) and (anti near reflective) same resist | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:19 |
| S31 | 2 | 438/778.ccls. and (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (amorphous near carbon) same carbon and (gas same hydrocarbon) and argon and (etch\$4 or pattern\$4) same (amorphous near carbon) and (etch\$4 or pattern\$4) same (dielectric or oxide or insulat\$4) and (anti near reflective or "ARC") same resist | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:19 |
| S32 | 2 | 438/778.ccls. and (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (amorphous near carbon) same carbon and (gas same hydrocarbon) and argon | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:20 |

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|-----|------|--|---|----|----|---------------------|
| | | and (etch\$4 or pattern\$4) same (amorphous near carbon) and (etch\$4 or pattern\$4) same (dielectric or oxide or insulat\$4) and (anti near reflective or "ARC") same resist and etch \$4 same (anti near reflective or "ARC") | | | | |
| S33 | 41 | (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (amorphous near carbon) same carbon and (gas same hydrocarbon) and argon and (etch\$4 or pattern\$4) same (amorphous near carbon) and (etch\$4 or pattern\$4) same (dielectric or oxide or insulat\$4) and (anti near reflective or "ARC") same resist and etch \$4 same (anti near reflective or "ARC") | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/20 11:24 |
| S34 | 1338 | (etch\$4 same (dielectric or oxide or insulat\$4)) same (amorphous near carbon) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/26 09:19 |
| S35 | 279 | (etch\$4 same (dielectric or oxide or insulat\$4)) same (amorphous near carbon) and ("ARC" or (anti near reflective near coat\$4)) same (amorphous near carbon) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/26 09:20 |
| S36 | 69 | (etch\$4 same (dielectric or oxide or insulat\$4)) same (amorphous near carbon) and ("ARC" or (anti near reflective near coat\$4)) same (amorphous near carbon) and (deposit\$4 same resist) and (pattern\$4 same resist) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/26 09:21 |

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|-----|----|---|---|----|----|---------------------|
| S37 | 61 | (etch\$4 same (dielectric or oxide or insulat\$4)) same (amorphous near carbon) and ("ARC" or (anti near reflective near coat\$4)) same (amorphous near carbon) and (deposit\$4 same resist) and (pattern\$4 same resist) and resist\$4 same ("ARC" or (anti near reflective near coat\$4)) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/26 09:22 |
| S38 | 60 | (etch\$4 same (dielectric or oxide or insulat\$4)) same (amorphous near carbon) and ("ARC" or (anti near reflective near coat\$4)) same (amorphous near carbon) and (deposit\$4 same resist) and (pattern\$4 same resist) and resist\$4 same ("ARC" or (anti near reflective near coat\$4)) and etch\$4 same ("ARC" or (anti near reflective near coat\$4)) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2009/08/26 09:22 |

EAST Search History (I nterference)

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|---|--------------------|------------------|---------|------------------|
| L2 | 16 | (etch\$4 same (dielectric or oxide or insulat\$4)) same (amorphous near carbon) and ("ARC" or (anti near reflective near coat\$4)) same (amorphous near carbon) and (deposit\$4 same resist) and (pattern\$4 same resist) and resist\$4 same ("ARC" or (anti near reflective near coat\$4)) and etch\$4 same ("ARC" or (anti near reflective near coat\$4)) .clm. | US-PGPUB; USPAT | OR | ON | 2009/08/26 15:51 |

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|----|---|---|-----------------|----|----|------------------|
| L3 | 9 | (substrate or wafer or carrier or base or plate) same chamber and (dielectric or oxide or insulat\$4) same (substrate or wafer or carrier or base or plate) and (amorphous near carbon) same hydrogen and (amorphous near carbon) same carbon and (gas same hydrocarbon) and argon and (etch\$4 or pattern\$4) same (amorphous near carbon) and (etch\$4 or pattern\$4) same (dielectric or oxide or insulat\$4) and (anti near reflective or "ARC") same resist and etch\$4 same (anti near reflective or "ARC"). clm. | US-PGPUB; USPAT | OR | ON | 2009/08/26 15:51 |
| L4 | 2 | "10799146" | US-PGPUB; USPAT | OR | ON | 2009/08/26 15:55 |

8/ 26/ 09 4:01:21 PM

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